We claim:

1. A system for controlling the rate at which fluid flows to an engaging clutch and for quickly disengaging the clutch, comprising:

a source of pressurized fluid;

a valve hydraulically connected to the fluid source including a spool for alternately opening and closing communication through the valve between the fluid source and the clutch;

a seat located between the valve and the clutch; and

a plate moveable by fluid flow in a first direction into contact with the seat and moveable by fluid flow in a second direction away from the seat, the plate having an orifice through which fluid enters the clutch when the plate contacts the seat, and openings through which fluid from the clutch passes when the plate is away from the seat.

2. The system of claim 1, further comprising:

a tube located between the plate and the clutch, including a head adjacent the plate and formed with the seat, a shank having a passage hydraulically communicating with the clutch, the orifice being aligned with the passage when the plate contacts the seat.

3. The system of claim 1, wherein

the tube head is formed with a guide surface; and

the plate is formed with first flanges directed from the surface toward the tube, spaced angularly around the orifice, and surrounding the guide surface when the plate contacts the seat.

4. The system of claim 1, further comprising:

a stop surface facing and spaced from the seat for limiting movement of the plate away from the seat; and wherein

the plate is formed with second flanges directed from the surface toward the stop surface and spaced angularly around the orifice.

5. The system of claim 1, further comprising:

a stop surface facing and spaced from the seat for limiting movement of the plate away from the seat; and wherein

the plate is formed with first flanges directed from the surface toward the tube and spaced angularly around the orifice, and second flanges directed from the surface toward the stop surface and spaced angularly around the orifice.

6. The system of claim 1, further comprising:

a stop surface facing and spaced from the seat for limiting movement of the plate away from the seat; and wherein

the tube head is formed with a guide surface; and

the plate is formed with first flanges directed from the surface toward the tube and spaced angularly around the orifice, surrounding the guide surface when the plate contacts the seat, and second flanges directed from the surface toward the stop surface and spaced angularly around the orifice.

7. The system of claim 1, further comprising:

a low pressure source; and wherein

the valve is hydraulically connected to the low-pressure source, and the spool alternately opens and closes communication through the valve between the low-pressure source and the clutch.

8. The system of claim 1, further comprising:

a stop surface facing and spaced from the seat for limiting movement of the plate away from the seat;

a low pressure source; and wherein

the valve is hydraulically connected to the low-pressure source, and the spool alternately opens and closes communication through the valve between the low-pressure source and the clutch.

9. An orifice in a hydraulic control system for controlling the rate at which fluid flows in a first direction and for permitting rapid flow in a second direction, comprising:

a passage surrounded by a seat; and

a plate moveable by fluid flow into contact with the seat and moveable by fluid flow away from the seat, the plate having an orifice through which fluid enters the passage when the plate contacts the seat, and openings through which fluid from the passage passes when the plate is away from the seat.

10. The orifice of claim 9, further comprising:

a tube formed with the passage and including the seat located between the plate and the passage, the orifice being aligned with the passage when the plate contacts the seat.

11. The orifice device of claim 9, wherein

the plate is formed with first flanges directed toward the passage, spaced angularly around the orifice.

12. The orifice of claim 9, further comprising:

a stop surface facing and spaced from the seat for limiting movement of the plate away from the seat; and wherein

the plate is formed with second flanges directed toward the stop surface and spaced angularly around the orifice.

13. The orifice of claim 9, further comprising:

a stop surface facing and spaced from the seat for limiting movement of the plate away from the seat; and wherein

the plate is formed with first flanges directed from the surface toward the passage and spaced angularly around the orifice, and second flanges directed from the surface toward the stop surface and spaced angularly around the orifice.

14. The orifice of claim 9, further comprising:

a tube formed with the passage and including the seat located between the plate and the passage, the orifice being aligned with the passage when the plate contacts the seat, the tube including a head formed with a guide surface;

a stop surface facing and spaced from the seat for limiting movement of the plate away from the seat; and wherein

the plate is formed with first flanges directed from the surface toward the tube and spaced angularly around the orifice, surrounding the guide surface when the plate contacts the seat, and second flanges directed from the surface toward the stop surface and spaced angularly around the orifice.

15. An orifice in a hydraulic control system for controlling the rate at which fluid flows in a first direction and for permitting rapid flow in a second direction, comprising:

chamber containing a seat and a stop surface spaced from the seat;

a plate located in the chamber, moveable by fluid flow into contact with the seat and moveable by fluid flow away from the seat, the plate having an orifice through which fluid passes in the first direction when the plate contacts the seat, and openings

through which fluid passes in the second direction when the plate is away from the seat.

16. The orifice of claim 15, further comprising:

a tube formed with a passage and including the seat located between the plate and the passage, the orifice being aligned with the passage when the plate contacts the seat.

17. The orifice device of claim 15, wherein

the plate is formed with first flanges directed toward the seat, spaced angularly around the orifice.

18. The orifice of claim 15 wherein the plate is formed with second flanges directed toward the stop surface and spaced angularly around the orifice.

19. The orifice of claim 15 wherein the plate is formed with first flanges directed from the surface toward the passage and spaced angularly around the orifice, and second flanges directed from the surface toward the stop surface and spaced angularly around the orifice.

20. The orifice of claim 15, further comprising:

a tube formed with a passage and including the seat located between the plate and the passage, the orifice being aligned with the passage when the plate contacts the seat, the tube including a head formed with a guide surface; and wherein

the plate is formed with first flanges directed from the surface toward the tube and spaced angularly around the orifice, surrounding the guide surface when the plate contacts the seat, and second flanges directed from the surface toward the stop surface and spaced angularly around the orifice.